

REMARKS

The issues outstanding in the office action of February 1, 2010, are the objection to the specification and the rejections under 35 U.S.C. 112 and 103. Reconsideration of these issues, in view of the following discussion, is respectfully requested.

Objection to the Specification

The specification has been objected to for various reasons as set forth at page 2 of the office action. In order to remedy this objection, the abstract has been resubmitted as a separate page, and the title has been replaced with the title as it appears in the international application.

With respect to cross-referencing to related applications, it is submitted that no cross-reference is necessary. The present application is the national phase under 35 U.S.C. 371 of the international application and, accordingly, is the same application as the international case. Cross-referencing is only necessary where domestic priority is claimed under 35 U.S.C. 119(e) or 35 U.S.C. 120.

With respect to the form paragraphs at pages 3-5 of the office action detailing preferred layout for a specification, of course, this layout is preferred, not mandatory. Thus, applicants prefer not to make any changes to the specification.

Rejections Under 35 U.S.C. 112

Claim 16 has been rejected under 35 U.S.C. 112, second paragraph. The Examiner is thanked for indicating the incorrect dependency of the claim, which has been remedied by the foregoing amendment. Withdrawal of the rejection is respectfully requested.

Rejection Under 35 U.S.C. 103

Claims 24-26, 28, 29, 42 and 43 are rejected under 35 U.S.C. 103 over Pause. Reconsideration of this rejection is again respectfully requested. Pause discloses silicone rubber materials containing finely divided phase change materials, and a process for their production. See column 1, lines 18-21. Pause discloses a method for thermal

insulation of cables or thermal protection of technical products employing this silicone rubber matrix containing the finely divided phase change materials, emulsified or dispersed in a cross-linked silicone rubber structure. See column 3, lines 16-28. This disclosure does not suggest the present claims.

First, at page 7 of the office action, it is argued that the preamble recitation of insulating the flowline or pipeline is not given patentable weight because the recitation occurs in the preamble. It is thus presumed that the Examiner has overlooked, in the body of claim 24, the further recitation that the insulating liquid base and gelling agent are positioned “on a surface of the flow line or pipeline to be insulated” thus requiring the presence of the flowline or pipeline. Thus, it is clear that the recitation must be given weight and, on this basis alone, the claim is patentable. Moreover, the claim has been amended in order to recite the compatibilizing agent, which, as discussed below, further provides patentability. Withdrawal of this rejection is accordingly respectfully requested.

Claims 1, 2, 4, 5, 8, 10, 12-14, 17-19, 21 and 22 have been rejected under 35 U.S.C. 103 over Pause taken with Kilgour. Reconsideration of this rejection is respectfully requested. As admitted at page 8 of the office action, Pause fails to teach the use of a compatibilizing agent. Instead, a silicon rubber matrix is formed by mixing a phase change material in a liquid silicon rubber having a cross-linking agent (e.g., a hydrogen-functional polysiloxane) and a catalyst. Pause does not teach the need for a compatibilizing agent, inasmuch as the *crystalline* alkyl hydrocarbon phase change materials employed therein are taught to be stable, do not flow out of the silicon rubber structure in liquid stage and are first melted. See columns 3 and 4 of the patent.

Kilgour does not remedy the deficiency of Pause, inasmuch as it is directed to a non-analogous art area. Kilgour discloses a silicone elastomer gel emulsion/composition usable in the cosmetic field (see column 1, lines 59-61 and column 7, lines 65 to column 8, line 10 and examples 9 (make-up) and 13-14 (anti-perspirant). The silicon elastomer of Kilgour is better dispersed in the organic liquid used in the emulsion or the composition (see column 1, lines 52-53). The organic liquid is defined in column 7, lines 15-24, as specifically suitable for a cosmetic emulsion/composition, and is used at ambient temperature. One of ordinary skill in the

art would not have combined this disclosure in Kilgour directed to cosmetics to an insulating agent such as liquid silicon rubber as described in Pause, wherein it is necessary to reduce the risk of demixing between an insulating base and polysiloxane so as to obtain thermal insulation having improved insulating quality, and stability over time and a *wide temperature range*. Thus, Kilgour suffers from the same deficiencies as previously cited Buckingham, which was also directed to personal care (i.e., cosmetic) compositions. Regardless of whether it is well known to use a compatibilizing agent to homogenize a mixture of components in a personal care composition, the entirely different constraints found in insulating cables (as in Pause) with an amount of composition which surely would satisfy the personal care requirements of a small village is simply not common sense to one of ordinary skill in the art. In view of the lack of any indication in the widely different field of Pause for the need of a compatibilizer, this combination of references simply is hindsight. Withdrawal of the rejection is accordingly respectfully requested.

Claims 6, 9, 15 and 16 have been rejected under 35 U.S.C. 103 over Pause, Kilgour and Salyer. Reconsideration of this rejection is also respectfully requested. The deficiencies of Pause and Kilgour are discussed above. Salyer, cited purely for its disclosure of various phase change materials, provides no remedy to this deficiency. In Salyer, patentees' process involves cross-linking of the matrix, then phase change material is subsequently added, and incorporated into the cross-linked matrix by immersing the matrix into a bath of melted phase change material. Not only does Salyer fail to disclose a process in which the phase change material is added in a polysiloxane resin during the cross-linking step, but Salyer fails to disclose the use of a compatibilizing agent in order to improve the stability of the insulating gel over the time.

Accordingly, withdrawal of this rejection is also respectfully requested.

Claim 22 has been rejected under 35 U.S.C. 103 over Pause, Kilgour and Hupfield. Reconsideration of this rejection is also respectfully requested.

Hupfield does nothing to remedy the deficiencies of Pause and Kilgour, discussed above. Hupfield is cited solely for its disclosure of anti-bacterial agents used in insulating materials. In fact, Hupfield does not relate to the field of flow lines or pipeline thermal insulation. Hupfield fails to describe a gel formed from an insulating liquid base which is a change material and at

least one gelling agent comprising at least one polysiloxane resin, and Hupfield fails to describe that additives are soluble in the liquid base. Accordingly, this rejection should also be withdrawn.

Claims 22 and 23 have been rejected under 35 U.S.C. 103 over Pause, Kilgour and Craubner. Reconsideration of this rejection is also respectfully requested. Craubner also fails to remedy the deficiencies of Pause and Kilgour and indeed is cited only for its disclosure of biocides. Although Craubner discloses a method for thermally insulated a pipeline consisting in surrounding the pipeline with an insulated material, which material comprises a plurality of contiguous hollow structures whose interstices are filled with a polysiloxane elastomer (line 35-39 page 2), Craubner fails to describe an isolated gel comprising an insulating liquid base which is a phase change material, a gelling agent comprising at least one polysiloxane resin and a compatibilizing agent. Furthermore, Craubner fails to describe that additives are soluble in the liquid base. As a result, Craubner fails to remedy the deficiencies of the primary and secondary references, and withdrawal of this rejection is also respectfully requested.

Claims 24-29 have been rejected under 35 U.S.C. 103 over Pause taken with Vergouw. Reconsideration of this rejection is also respectfully requested. As noted above, Pause, even in combination with Kilgour (not used in the present rejection) fails to disclose the use of a compatibilizing agent in combination with a insulating composition such as that of the claims. Vergouw does not describe an insulating liquid base which is a phase change material, gelling agent with at least one polysiloxane resin and a compatibilizing agent, but instead discloses a gel based on kerosene having increased viscosity when stirred. As a result, regardless of its teaching of the installation of power cables, this reference even in combination fails to suggest insulation of a pipeline with a combination of ingredients as claimed. Withdrawal of this rejection is accordingly respectfully requested.

The claims of the application are submitted to be in condition for allowance. However, should the Examiner have any questions or comments, she is cordially invited to telephone the undersigned at the number below.

The Commissioner is hereby authorized to charge any fees associated with this response or credit any overpayment to Deposit Account No. 13-3402.

Respectfully submitted,

/Harry B. Shubin/

Harry B. Shubin, Reg. No. 32,004
Attorney/Agent for Applicant(s)

MILLEN, WHITE, ZELANO
& BRANIGAN, P.C.
Arlington Courthouse Plaza 1, Suite 1400
2200 Clarendon Boulevard
Arlington, Virginia 22201
Telephone: (703) 243-6333
Facsimile: (703) 243-6410

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